

### REMARKS

This responds to the Office Action dated on January 6, 2006, and the references cited therewith.

Claims 1-16 are amended; as a result, claims 1-16 are now pending in this application.

#### §101 Rejection of the Claims

1. Claims 1-2, 6, and 8-15 were rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Applicant respectfully disagrees for the following reasons.

Applicant respectfully submits that determining under-developed areas (“content holes”) in a content body organized into a plurality of content nodes is indeed useful, concrete, and a tangible result, for at least the following reasons. First, it could alert an administrator, knowledge engineer, or other user to the existence of such a content hole, such as to allow content to either be developed or associated with the appropriate concept node(s) to fill the content hole. Second, it could allow a system to direct a user to related or relevant content to improve a later user experience or an effectiveness of information retrieval. Thus, Applicant respectfully submits that the identification or determination of one or more content holes provides a useful, concrete, and tangible result, and therefore meets the requirements of 35 U.S.C. § 101 as required by *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368 at 1373, 47 USPQ2d 1595 at 1601-02 (Fed. Cir. 1998). Applicant respectfully submits that even if an algorithm is used to achieve such a useful, concrete, and tangible result, this does not remove the claims from constituting properly claimed statutory subject matter under § 101.

M.P.E.P. § 2106 II(A) requires that “Office personnel have the burden to establish a *prima facie* case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101.” The Office Action, however, fails to establish any *prima facie* case by the mere allegation that claims 1, 2, 6, and 8-15 “are mere ideas in the abstract.” (See Office Action at page 2). Applicant has above distinctly identified the practical application and useful,

concrete, and tangible result. Accordingly, Applicant respectfully requests withdrawal of this rejection.

2. Claims 2 and 5 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Applicant has amended claims 2 and 5 to more particularly point out and distinctly claim statutory subject matter. Applicant respectfully submits that such claims are currently in allowable form as provided by *In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995). Thus, Applicant respectfully requests withdrawal of this basis of rejection and reconsideration of these claims.

#### §112 Rejection of the Claims

3. Claim 25 was rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. Although the Office Action identifies claim 25, Applicant notes that the related discussion is in reference to claims 1 and 2, and is responding accordingly. Applicant has amended claims 1-2 and believes that the claims are now in allowable form. Accordingly, Applicant respectfully requests withdrawal of this basis of rejection of these claims.

4. Claims 3-5 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for using a relative term. Applicant has amended claims 3-5 and believes that the claims are now in allowable form. Accordingly, Applicant respectfully requests withdrawal of this basis of rejection of these claims.

#### §103 Rejection of the Claims

5. Claims 1-2, 6, 8-9, 13-14, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Beattie et al. (U.S. Patent No. 5,659,742).

#### Concerning claims 1-2, 6, 8-9, 13-14, and 16

As an initial note, Applicant recognizes that the Office Action apparently only relies on one reference, namely Beattie, to demonstrate disclosure, teaching, or suggestion of the claimed elements. Regardless of this fact, Applicant respectfully submits that no *prima facie* case of

obviousness presently exists because the cited portions of Beattie do not disclose, teach, or suggest, all elements of claims 1-2, 6, 8-9, 13-4, and 16.

The Office Action concedes that there is no disclosure (and accordingly no teaching, or suggestion) of flagging a content hole if the percentage of successful service interactions related to the first concept node is below a predefined threshold, as presently recited in claim 1, and similarly recited in claims 2 and 6. However, the Office Action, relying on Beattie, then goes on to contend that:

it would be obvious of one of ordinary skill in the art at the time the invention was made that the teachings of Beattie relevance scores ... can be mathematically expressed as a percentage as in fig. 4a where various scores are displayed is a indication of increase and decrease relevance score which would have had to be flagged or identified in order to determine relevance scores.

(Office Action at pages 4-5). However, the mere calculation of a document's relevance to a query—even if expressed as a percentage—is not necessarily the same as determining whether a service interaction was successful from the user's perspective. As an illustrative example, a query could return many documents—some even with a relevance score of 100 (to use the terminology provided by Beattie). Still, the user may not be able to find a document that satisfies his or her query. Such a query would reasonably be classified as a non-successful service interaction (NSI). Under such circumstances, the present system may identify (flag) a content hole. Thus, Applicant submits that it is improper to equate a mere high relevance score of a returned document as constituting a successful service interaction.

Furthermore, Applicant cannot find in the cited portions of Beattie any disclosure, teaching, or suggestion of “determining a percentage of successful service interactions as a function of concept nodes” as currently recited in claim 1 and similarly recited in claims 2 and 6. In fact, Applicant cannot find any discussion of “concept nodes” in Beattie. The Office Action apparently attempts to equate the claimed “concept nodes” to Beattie's “files representing textual documents and files representing multi media documents.” Applicant respectfully submits that such a construction is logically incorrect. In the present patent application, “concept nodes” are abstract groups related to a particular taxonomy (*see* Application at page 14, lines 2-7). In contrast, the present patent application recognizes that a knowledge container is, among other things, a document, multimedia, a question, an answer, or a product, which is related (tagged) to

one or more concept nodes (*see* Application at page 14, lines 7-13). Therefore, in the context of the present patent application, a file is not a concept node, but rather, constitutes something that would be tagged to a concept node. Therefore, in the present context, Beattie's files must be regarded as "knowledge containers," rather than "concept nodes." To regard Beattie's files as concept nodes—the very thing to which such files are tagged—would effectively result in tagging a file interpreted as a "concept node" to itself. Such a circular construction would defy logic. Thus, because the cited portions of Beattie apparently does not disclose, teach, or suggest all elements of claims 1-2, 6, 8-9, 13-4, and 16, Applicant respectfully requests withdrawal of this basis of rejection of these claims. For brevity, Applicant defers (but reserves the right to present) further remarks, such as concerning any dependent claims, which are believed separately patentable.

Furthermore, to the extent that this rejection constitutes a single-reference obviousness rejection under § 103, Applicant notes for the record that the Examiner appears to taking official notice of the missing elements, which is timely traversed herein under M.P.E.P. § 2144.03, and if the Examiner is aware of a reference providing support for the assertion, citation of such reference is respectfully requested. If a reference cannot be provided, Applicant submits the assertion is formed on personal knowledge and Applicant requests that an affidavit be provided, as required by 37 C.F.R. § 1.104(d), or withdrawal of this 35 U.S.C. § 103 rejection.

6. Claims 3-5, 7, 10-12, and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Beattie et al. (U.S. Patent No. 6,643,640) in view of Arai (U.S. Patent No. 6,714,920).

As an initial note, Applicant recognizes that the Office Action is apparently referring to U.S. Patent No. 5,659,742, the Beattie et al. patent, in rejecting claims 3-5, 7, 10-12, and 15. Accordingly, Applicant is responding under such assumption.

Concerning claims 3-5, 7, 10-12, and 15

Applicant respectfully submits that no *prima facie* case of obviousness exists with respect to these claims because Applicant cannot find in the cited portions of Beattie and/or Arai any disclosure, teaching, or suggestion of all elements in claims 3-5, 7, 10-12, and 15. For example,

as discussed above, Applicant cannot find in the cited portions of the cited references “determining a percentage of successful service interactions” as presently recited in these claims.

Furthermore, Applicant cannot find in the cited portions of Beattie and/or Arai any disclosure, teaching, or suggestion of “billing as a function of the difference between the percentage of successful service interactions in the first information retrieval system and the percentage of successful service interactions for services provided in the second information retrieval system” as presently recited in claim 3 and similarly recited in claims 5 and 7. Instead, Arai apparently discloses a system of billing that bills a user for content that they access, and reduces the billing amount by a discount. This discount is based on the value of any advertising received by the user in conjunction with the accessed content. (*See Arai at Abstract*). However, Applicant cannot find any discussion of a successful service interaction in Arai, much less any disclosure, teaching, or suggestion of billing as a function of the percentage of successful service interactions.

Thus, for at least these reasons Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) basis of rejection of these claims. For brevity, Applicant defers (but reserves the right to present) further remarks, such as concerning any dependent claims, which are believed separately patentable.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6951 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

DAVID B. KAY ET AL.

By their Representatives,


SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

P.O. Box 2938

Minneapolis, MN 55402

(612) 373-6951

Date March 23, 2006

By 

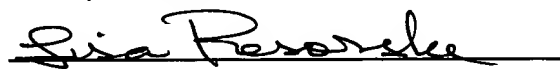
Suneel Arora

Reg. No. 42,267

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 23 day of March, 2006.

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